

WYOMING FIRST GRAINS



The Wyoming First Grains Project

- Research and economic development effort of the University of Wyoming
- Field trials on five farms and three UW research stations
- Working with maltsters, brewers, and commercial and home bakers to develop



The Early Wheats

- Higher in protein and minerals
- NOT gluten free
- Easier to digest than modern wheat?
- Dough quality (gluten) considered inferior
- Distinct flavors
- Not free threshing
- Thrive in low input systems





Wheat

Spelt

Emmer

Einkorn

WHEAT



SPELT



EMMER



EINKORN



Einkorn

- One of the first cereals domesticated and grown for food in Tigris-Euphrates region (4,000-10,000 BCE)
- Diploid (2 chromosomes)
- Most challenging to grow and bake with
- Replaced by barley and emmer in late bronze age



BOLZANO JOURNAL

Who Killed the Iceman? Clues Emerge in a Very Cold Case



Ötzie the Ice Man
3300 B.C.

“Roughly half an hour before his death he was having a proper meal, even a heavy meal,” Inspector Horn said. The Copper Age menu was well balanced, consisting of ibex meat, smoked or raw; einkorn wheat (an early domesticated variety), possibly in the form of bread; some sort of fat, which might have been from bacon or cheese; and bracken, a common fern.

Emmer

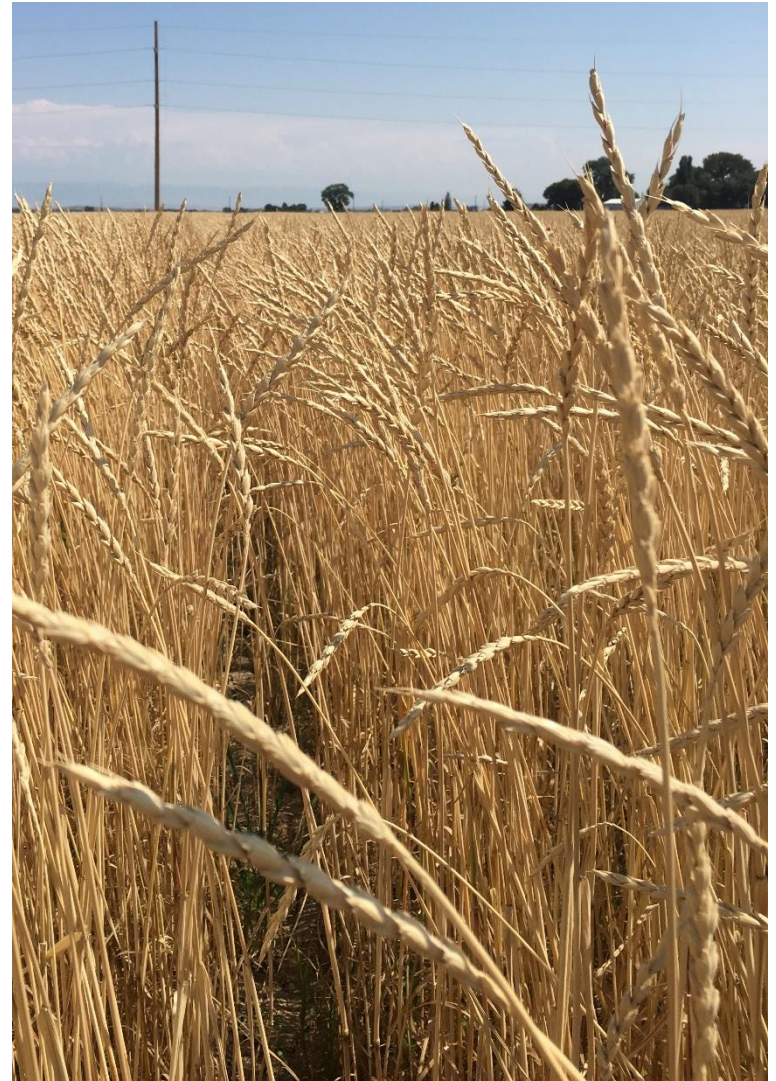
- Tetraploid (4 chromosomes)
- Ability to thrive in a wider range of conditions
- Easier to bake with than einkorn



NEW IMPROVED WINTER EMMER YIELDING NINETY BUSHELS PER ACRE
First crop on new irrigated land; grown by Prof. B. C. Buffum at Worland, Wyoming

Spelt

- Hexaploid (6 chromosomes) like modern wheat
- Benefited from crop breeding and cultivar selection
- Used for forage and food
- Peak production of emmer and spelt in US at 600,000 acres in early 1900s
- Most commonly available, and easiest to bake with



UW Research

- Nutrient use efficiency
- Water use
- Nutrition
- Malt quality
- Flour quality



Now What?

